YUNUSOV, A.Yu.; SHCHEKIN, V.A.; KIYATKIN, P.P.

Scientific achievements in the physiology and and genetics of farm
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(MIRA 11:9)

(Uzbekistan--Soil research)

YUBUSOV, A.Yu., akademik, otv.red.; VOLYNSKIY, A.S., prof., red.; IZRAEL',
A.I., prof.;red.; KAMILOV, I.K., kand., red.; KRYZHENKOV, A.N., kand.
biol.nauk; red.; SADYKOV, A.S., prof., red.; SAGATOV, R.S., kand.
med.nauk, red.; TURAKULOV, Ya.Kh., kand.biol.nauk, red.; KHAYBUT-
DINOV, Kh.Sh., kand.biol.nauk; red.; KHASHIMOV, A.Kh., prof., red.;
YAKOVENKO, Ye.P., red.izd-va; SHARIKOVA, V.P., tekhn.red.

[Papers from the First Conference of Physiologists, Biochemists, and
Pharmacologists of Central Asia and Kazakhstan] Materialy I Konferentsii
fiziologov, biokhimikov i farmakologov Srednei Azii i Kazakhstana.
Tashkent, Izd-vo Akad.nauk Uzbekskoi SSR, 1958. 647 p.   (MIRA 12:3)
                                        (Continued on next card)

YUNUSOV,A,Yu.--(continued) Card 2.
  1. Konferentsiya fiziologov, biokhimikov i farmakologov Sredney
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  Uzbekskoy SSR, Tashkent (for Yunusov, Turakulov, Khayrutdinov).
  3.Meditsinskiy institut, Tashkent (for Volynskiy, Sadykov,
  Khashimov). 4. Sredneaziatskiy gosudarstvennyy universitet,
  Tashkent (for Izrael').
                 (PHYSIOLOGY)   (BIOCHEMISTRY)
                        (PHARMACOLOGY)

YUNUSOV, A.Yu.; TURSUNOV, Z.T.; ZAKIROVA, V.S.

Effect of some liquids on the blood in cases of high temperature and dehydration of the body. Izv. AN Uz. SSR. Ser. med. no.1:11-21 '58.

(MIRA 12:7)

1.Institut krayevoy meditsiny AN UzSSR.

(BLOOD—ANALYSIS AND CHEMISTRY)

(HEAT—PHYSIOLOGICAL EFFECT)

YUNUSOV, A.Yu.; MAKHMUDOV, E.S.; VAKHIDOVA, R.T.

Effect of a predominantly protein and carbohydrate diet on
salt and water metabolism at high temperatures. Izv.AN Uz.
SSR.Ser.med. no.2:35-44 '58.   (MIRA 12:5)

1. Institut krayevoy meditsiny AN UzSSR.
   (BLOOD--ANALYSIS AND CHEMISTRY) (SALT IN THE BODY) (DIET)
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YUNUSOV, A.Yu,akademik

Functional changes in the digestive organs at high temperatures.
Izv.AN Uz.SSR.Ser.med. no.6:9-19 '58.   (MIRA 12:5)

1. AN UzSSR. 2. Laboratoriya fiziologii Instituta krayevoy
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  (DIGESTIVE ORGANS)   (HEAT--PHYSIOLOGICAL EFFECT)

YUNUSOV, A.Yu.; MAKHMUDOV, E.S.

Influence of various edible and potable substances on the water
and salt metabolism in man. Med.zhur.Uzb. no.8-9:70-79 Ag-S '58.
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1. Iz laboratorii fiziologii Instituta krayevoy meditsiny AN
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(DIET)   (SALT IN THE BODY)

Yunusov, A.Yu.

YUNUSOV, A.Yu,

In memory of K.M. Bykov. Izv. An Uz. SSR. Ser.med. no.4:70-71 '59.

(MIRA 12:12)

(BYKOV, KONSTANTIN MIKHAILOVICH, 1886-1959)

YUNUSOV, A.Yu., akademik; VAKHIDOVA, R.T.

Effect of stimulation of interoceptors of the digestive tract on the saline composition of the blood. Izv. AN Uz.SSR. Ser.med. no.4:3-8 '59.   (MIRA 12:12)

1. AN UzSSR (for Yunusov). 2. Institut krayevoy meditsiny AN UzSSR.
   (DIGESTIVE ORGANS) (BLOOD--ANALYSIS AND CHEMISTRY) (REFLEXES)

YUNUSOV, A.Yu., prof., akademik

Ninth All-Union Congress of Physiologists, Biochemists and
Pharmacologists. Izv.AN Uz.SSR.Ser.med. no.5:87 '59.
(MIRA 13:3)

1. AN UzSSR.
(PHYSIOLOGY—CONGRESSES)

YUNUSOV, A. Yu., prof.

Some characteristics of digestion, water and salt metabolism and the
feeding regimen in a hot climate. Med. zhur. Uzb. no.6:7-12 Je '60.
(MIRA 15:2)

1. Iz laboratorii fiziologii Instituta krayevoy i eksperimental'noy
meditsiny AN UzSSR.
(DIGESTION)
(WEATHER—MENTAL AND PHYSIOLOGICAL EFFECT)   (METABOLISM)

TURAKULOV, Ya.Kh.; YUNUSOV, A.Yu., doktor med. nauk, otv. red.;
    MEREZHINSKIY, M.V., prof., retsenzent; TERNOVSKAYA, R.M.,
    red.; KARABAYEVA, Kh.U., tekhn. red.

[Biochemistry of thyroid hormones in healthy and pathological
states] Biokhimiia gormonov shchitovidnoi zhelezy v norme i
pri tireoidnoi patologii. Tashkent, Izd-vo Akad. nauk Uzbek-
skoi SSR, 1962. 221 r.   (MIRA 15:7)
                (THYROID HORMONES)
                (THYROID GLAND—DISEASES)

YUNUSOV, A.Yu.; TURSUNOV, Z.T.

Neural regulation of the blood under conditions of high temperature.
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1. Iz Instituta krayovoy meditsiny AMN UzSSR.
        (NERVOUS SYSTEM)   (HEAT--PHYSIOLOGICAL EFFECT)
                      (BLOOD)

YUNUSOV, A.Yu.; RUSINOVA, G.I., red.; AGZAMOV, K., tekhn. red.

[Physiology of the blood in man and animals in a hot climate]
Fiziologiia krovi cheloveka i zhivotnykh v zharkom klimate.
Tashkent, Medgiz, UzSSR, 1961.   207 p.   (MIRA 15:11)
    (BLOOD--ANALYSIS AND CHEMISTRY)
    (HEAT--PHYSIOLOGICAL EFFECT)

YUNUSOV, A. YU.

" Water-salt metabolism in a hot climate "

report submitted for the UNESCO/India Symposium on Environmental
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YUNUSOV, A.Yu.; KOROT'KO, G.F.; SHRAMKOVA, G.A., red.; TSAY, A.A., tekhn. red.

[Functions of the digestive organs in a hot climate]Funktsii organov pishchevareniia v zharkom klimate. Tashkent, Medgiz UzSSR, 1962. 223 p. (MIRA 15:11)
(DIGESTION) (HEAT—PHYSIOLOGICAL EFFECT)

YUNUSOV, A.Yu.; TURSUNOV, Z.T.

Cortical regulation of seasonal changes in the water and salt content of the organism. Uzb.biol.zhur.6 no.4:42-45'62.

(MIRA 16:7)

1. Institut krayevoy eksperimental'noy meditsiny AN UzSSR.
   (CEREBRAL CORTEX)   (METABOLISM)

YUNUSOV, A.Yu.

Characteristics of water-salt metabolism and its regulation at
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1. Institut krayevoy eksperimental'noy meditsiny AN UzSSR.
(WATER METABOLISM)   (SALT IN THE BODY)
(HEAT—PHYSIOLOGICAL EFFECT)

YUNUSOV, A.Yu.; TURSUNOV, Z.T.

Effect of repeated action of high temperatures on water-salt
metabolism. Uzb.biol.zhur. 7 no.2:11-15'63.   (MIRA 16:8)

1. Institut krayevoy eksperimental'noy meditsiny AN UzSSR.
        (WATER METABOLISM)   (SALT IN THE BODY)
                (HEAT—PHYSIOLOGICAL EFFECT)

TURAKULOV, Ya.Kh.; YUNUSOV, A.Yu., otv. red.; NURATDINOVA, M.R.,
        red.; KARABAYEVA, Kh.U., tekhn. red.

[Biochemistry and pathological chemistry of the thyroid
gland] Biokhimiia i patokhimiia shchitovidnoi zhelezy.
Tashkent, Izd-vo AN Uzb.SSR, 1963. 403 p. (MIRA 17:3)

1. AN Uzb.SSR (for Yunusov).

YUNUSOV, A.Yu.; TURSUNOV, Z.T.

Cortical regulation of the blood in water deficiency. Trudy
Inst. kraev. eksper. med. no.5:32-40 '63.   (MIRA 17:6)

YUNUSOV, A.Yu.; MIRZAKARIMOVA, M.G.

Content of mineral substances in the skin and muscles of dogs
under the repeated effect of high temperature from solar
irradiation. Uzb. biol. zhur. 8 no.6:32-36 '64.

(MIRA 18:3)

1. Uzbekskiy institut krayevoy meditsiny AMN SSSR.

YUNUSOV, A.Yu.; BELOVA, E.S.

Participation of digestive organs in the regulation of water-
electrolyte metabolism under various thermal conditions. Fiziol.
zhur. 51 no.3:378-383 Mr '65.   (MIRA 18:5)

1. Otdel fiziologii Uzbekskogo instituta krayevoy meditsiny AMN
SSSR, Tashkent.

YUNUSOV, A.Yu.; RAKHIMOV, K.; SAFAROVA, S.N.

Amylolytic activity of the pancreas, liver and intestine under
the conditions of high temperature and insolation. Uzb. biol.
zhur. 9 no.4:35-38 '65.   (MIRA 18:10)

1. Institut krayevoy meditsiny AMN SSSR.

YUNUSOV, A.Yu.; RAKHIMOV, K.; YAKUSH, Z.N.

> Some data on perivisceral and parietal digestion in the sheep
> intestines. Uzb. biol. zhur. 9 no.5:32-35 '65.
>
> (MIRA 18:10)
>
> 1. Uzbekskiy institut krayevoy meditsiny AMN SSSR i Uzbekskiy
> nauchno-issledovatel'skiy institut zhivotnovodstva.

Tarasov, A. Yu.; Belov, [...]

[...]rtment of Physiology, [...]
[...] (Otdel fiziologii [...]

TITLE: [...] participation of organs of [...]
metabolism under various temperature [...]

[...] Fiziologicheskiy zhurnal [...]

[...] digestive system, [...]

The secretion of saliva, gastric juice,
[...] in the small intestine as well as [...]
[...] in them were stud[...]
high temperatures by keeping [...]
the secretion of saliva and [...]
[...] compared with the normal [...]
[...] high temperature[...]
[...] salivation as compared [...]
feeding at the optimum temperature vari[...]
it was greatest for fat, lower for protein[...]

Card 1/4

ACC NR: AP60159

...ed food. On the other hand, the secretion of ...
... excretion of salts with it were reduced in ...
...levated temperature as compared with ...
...erature. This effect was ... for ...
for fats or carbohydrates. ...
...roteins increased the secretion of intestinal ...
...retion of salts with it at ... temper...
...rbohydrates reduced them. ...
...mall intestine in hot weath... ...
...a normal condition by ... ...
...metabolic processes. ... in ...
...e most favorable condition... from the ...
...f excessive losses of water and salts ...
...n hot weather are created by keeping ...
mixed food. Orig. art. has: ... figures. ...

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KHALEVIN, N.I.; YUNUSOV, F.F.

Using the elastic waves from commercial blasting
in the Urals for sounding the earth's core. Izv.
AN SSSR. Ser. geofiz. no.11:1567-1573 N '62. (MIRA 15:11)

1. Ural'skiy filial AN SSSR, Institut geofiziki.
   (Ural Mountains—Earth—Internal structure)
      (Elastic waves)   (Blasting)

SOV/123-59-14-55186

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 14, p 98 (USSR)

AUTHOR: Yunusov, F. S.

TITLE: A Method of Determining the Optimum Values of Technological Characteristics of Line Milling

PERIODICAL: Tr. Kazansk. aviats. in-ta, 1958, Vol 41, pp 75 - 89

ABSTRACT: Most of the blades of aircraft gas turbine engines are machined on copying milling machines of the OF-31 type with one spindle, or on the OF-33 type with three spindles. A method is described to determine the optimum values for the quantity of lines, the width of lines, the distance between the tracing rollers, and the diameter of rollers. 13 figures.

P.B.L.

Card 1/1

YUNUSOV, F. S.: Master Tech Sci (diss) -- "Investigation of the technological

values of the 'short-line' method of working spatially complex surfaces".

Kazan', 1959. 17 pp (Min Higher Educ USSR, Kazan' Aviation Inst), 150 copies

(KL, No 11, 1959, 121)

84059

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11100   2208.

S/147/60/000/003/018/018
E191/E481

AUTHORS: Yunusov, F.S. and Zhadin, G.P.

TITLE: Computation of the Setting Up Dimensions in the Strip
             Method of Machining Double Curvature Surfaces

TEXT: Previously (Trudy KAI, Issue 41, Kazan, 1958), the senior
author proposed a procedure for computing the machining dimensions
for the strip method of milling of surfaces defined by coordinate
points in reference cross-sections.   In the present paper, a
single computation procedure is presented applicable to intermediate
and finish machining operations.   The surface has one cross-section
with the largest curvature, which is found by comparing all given
parallel cross-sections.   When the curve is replaced by a broken
line deviating from it within the given tolerances, the equations
of equi-distant curves separated from the nominal curve by the
amount of the upper and lower limit deviations must be known.
An allowance is defined which contains the allowances for
subsequent operations, errors of shape, setting up errors and other
manufacturing errors.   In intermediate operations, this quantity is
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E191/E481

Computation of the Setting Up Dimensions in the Strip Method of
Machining Double Curvature Surfaces

added in the direction of increasing size to the lower and upper
limit curves.   In the finish machining operation, the appropriate
value of this quantity is struck in the direction of reducing the
size from the upper limit curve.   The so-called reference
deviations are the result of adding (each with its appropriate
sign) the upper or lower tolerance and the allowance quantity.
An analysis is given leading to the computation of various
machining dimensions when a given double curvature surface has to be
machined within a given tolerance.   First, the given curve is
replaced by a broken line consisting of equal length sections.
Then the method is extended to the case of a broken line with
unequal lengths of its sections.   It is stated that the proposed
method of computation was tested experimentally under workshop
conditions in its application to the machining of blades of a
production aviation turbine.   It is claimed that the machine time
was reduced by 60% due to a reduction in the number of passes and
the elimination of a turning operation (thus also saving the tooling
up of a copying lathe).   A numerical example is given in which the
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E191/E481

Computation of the Setting Up Dimensions in the Strip Method of Machining Double Curvature Surfaces

number of strips (passes), the width of the strip, the distances between tracer rollers and the diameter of the tracer roller are computed for the aerofoil part of a gas turbine blade specified by coordinate points in reference cross-sections in terms of a rectangular coordinate frame.   For surfaces with a convex longitudinal cross-section, the limit should be given in terms of minimum metal and for surfaces with a concave longitudinal cross-section, in terms of maximum metal.   There are 4 figures, 1 table and 3 Soviet references.

ASSOCIATION: Kazanskiy aviatsionnyy institut Kafedra proizvodstva
             aviadvigateley (Kazan Aviation Institute, Chair of
             Aircraft Production)

SUBMITTED: May, 4, 1960

Card 3/3

YUNUSOV, F.S., kand.tekhn.nauk

Errors in the blade point caused by changes in cutting-tool
diameters in milling. Izv.vys.ucheb.zav.; mashinostr. no.5:
112-119 '60.   (MIRA 13:7)

1. Kazanskiy aviatsionnyy institut.
         (Metal cutting)

30258
S/145/60/000/009/014/017
D221/D304

1. 1100

AUTHORS: Zhadin, G. P., Candidate of Technical Sciences, Docent,
Troyanskiy, N. S., Senior Instructor and Yunusov, F. S.,
Candidate of Technical Sciences

TITLE: Calculation of angle of rotation of the workpiece in
a pass for machine tools, type ЛШ-1 (LSh-1)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashino-
stroyeniye, no. 9, 1960, 136 - 141

TEXT: When machining of non-circular surfaces by longitudinal
passes, feed is ensured either by parallel motion to one of the
axes of coordinates, or by rotation around the axis of holder. In
the first arrangement, machining is based on the composition of
three simultaneous elementary motions. One determines the speed of
machining, the second - the feed, and the third forms the tracer
feed which is determined by the template. Each of these motions is
simple in itself, whereas the resulting displacement is involved.
These machine tools are usually provided with a constant feed per

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D221/D304

Calculation of angle of ...

pass which reduces their efficiency, but allows, however, the use
of one template (cam) only. The maximum angle of rise in the pro-
file of workpiece is taken as a base to ensure machining within
the allowed limit. Similarly, in the case of machines with rotary
feed (Fig. 2), the magnitude of angle α of rotation around axis of
holder should be set over the most distant part of the surface.
The template is placed on the common horizontal axis 2 to ensure
the production of specified form of the workpiece 1. The former is
in permanent contact with tracer follower, and executes together
with it a reciprocating motion. To determine α it is necessary to
have two positions of cutting tool at a distance which would en-
sure that roughness between passes would not exceed the allowance
δ. The author then gives a mathematical analysis which results in
a graph relating α and the diameter of tool d, radius of rotation
ρ and δ. Consequently, when the latter quantities are specified,
it is possible to determine the angle of rotation per pass α, when
machining discrepancies will not exceed the allowed limit. The
choice of two extreme sections is due to the usual specification
of calculated sections for involved surfaces, such as gas turbine

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D221/D304

Calculation of angle of ...

blades etc. The most advantageous position of the axis of rotation of holder (or component) is determined by tracing through three maximum distant profiles of the workpiece M_1, M_2 and M_3 (Fig. 5) a circle with radius ρ and coordinates of its center $O_1 - x_o$ and y_o. A set of equations determines these quantities. A numerical example follows the above. Calculations for a slightly twisted surface indicate a marked difference in the angle α which increases with very twisted shapes. This is examplified by existing machines, where this angle is less than 6°. There are 5 figures and 1 table.

ASSOCIATION: Kazanskiy aviatsionnyy institut (Kazan Aviation Institute)

SUBMITTED: April 12, 1960

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32027
S/145/60/000/005/009/010
D221/D301

| . | 00

AUTHOR:

TITLE:

PERIODICAL:

F.S. Yunusov, Candidate of Technical Sciences

Inaccuracies in the foil of a blade as a function
of the diameter of the milling cutter

Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroy-
eniye, no. 5, 1960, 112 - 119

X

TEXT: Fig. 1 indicates the distortion of a specified pro-
file due to changes of the initial diameter of the milling cutter. The
maximum error takes place at the edges. To produce components within
the allowed limits of error it is necessary to find the effect of cut-
ter diameter on the accuracy, as well as the minimum diameter for re-
grinding of the cutter. Assuming an allowance along the normal, the
limit of regrinding is given by $r_{1m} = r_m - \delta$, where r_{1m} is the tool
radius after sharpening, and r_m is the radius before grinding. After
sharpening, the center of the milling cutter must be shifted by δ in
order to bring it into contact with the workpiece. This shift is given

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Inaccuracies in the foil ...

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D221/D301

by
$$\varepsilon = (R_{pr} \pm r_f) \left[\cos \alpha - \sqrt{\left(1 \mp 1 \frac{\Delta_r}{R_{pr} \pm r_f}\right)^2 - \sin^2\alpha} \right], \quad (6) \quad \chi$$

where R_{pr} is the radius of the contour curvature at the given point.
The actual profile of the workpiece produced by the shift of center
of the tool with the changed diameter is

$$x_o = X \pm \frac{r_{1f} \cdot f'(x)}{\sqrt{1 + f'^2(x)}}, \quad y_o = Y_o \pm \frac{r_{1f}}{\sqrt{1 + f'^2(x)}}, \quad (7)$$

where $Y_o = Y \pm \varepsilon$. On portions of profile beyond the contact point of
restarted milling with the reground tool, the inaccuracy will be due
to change in the initial diameter of the milling cutter. The distance
between the intersection points of the normal with the required and
actual profile will respresent the machining error at the given point

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Inaccuracies in the foil ...

$$\Delta = \sqrt{(x - x_0)^2 + (y - y_0)^2} .$$ This error can be determined when the radius of curvature of the profile is known. In the above, x, y and x_0, y_0 are the coordinates of points M and M_0 of Fig. 3. The inaccuracy of the specified profile at point M is evaluated from the triangle $OO_1 M_0$ by

$$\Delta = -(R_{pr} + \mathcal{E} \cos \alpha) \pm \sqrt{(R_{pr} + \Delta r)^2 - \mathcal{E}^2 \sin^2 \alpha} \qquad (10)$$

The machining error after tool sharpening is obtained if the angle of inclination of the curve is known. In the case of twisted components, or workpiece with variable cross section, both the root section and the neutral section angles are considered . The profile obtained depends within limits on the correct choice of tracer follower and the diameter of the milling cutter. The final form of the error equation is

$$\Delta = \frac{R \Delta r (1 - \cos \alpha)}{R + \Delta r \cdot \cos \alpha} .$$

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Inaccuracies in the foil ...   S/145/60/000/005/009/010
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The limit diameter of the milling cutter, d_{1m} which ensures a profile within the permitted limits is given by

$$d_{1m} = d_m - \frac{2\delta}{1 - \cos\alpha} \circ$$

A numerical example is given. Further use of the reground tool should be made possible by a corresponding change of followers. The establish- ed limit of regrinding of the cutter permits reduction of the sets of tracers, and an increase in the operating time of the milling machine. There are 5 figures, 1 table and 4 Soviet-bloc references.

ASSOCIATION: Kazanskiy aviatsionnyy institut (Kazan' Aviation Institute)

SUBMITTED: April 25, 1959

Card 4/7

YUNUSOV, F.S., kand.tekhn.nauk, dotsent; TROYANSKIY, N.S., starshiy
prepodavatel'

Calculating dimensions of the operating and follow-up rollers of
the LSh-1 machine tools. Izv.vys.ucheb.zav.; mashinostr. no.6:102-
111 '62.
(MIRA 15:11)

1, Kazanskiy aviatsionnyy institut.
(Grinding machines)

YUNUSOV, F.S.; TROYANSKIY, N.S.

Grinding shaped surfaces on the LSh-1A machine tools. Trudy KAI
no.70:144-158 '62.
(MIRA 18:4)

YUNUSOV, F.S., kand.takhn.nauk, dotsent; TROYANSKIY, N.S., starshiy prepodavatel'

Effect of contact pressure in machining on special-purpose band-grinding machines. Izv.vys.ucheb.zav.; mashinostr. no.6:172-181 '63.

(MIRA 16:10)

1. Kazanskiy aviatsionnyy institut.

YUNUSOV, F.S.; TROYANSKIY, N.S.

Theoretical investigation of metal chip thickness in grinding a
flat surface by the longitudinal line method. Trudy KAI no.74:
50-57 '63.
                                                           (MIRA 17:2)

TIMUSK, I.D.; DI PINSKIY, V.Y.

Kinematics of abrasive granules in live motion of

L 55252-65
ACCESSION NR: AP5010373

cutting force, which plays the major part in producing the
Rosenberg cutting force equation as given by A. M. Rosenbe
(Elementy teorii protsessa rezaniya metallov, Mashgiz, '95
(where F' - cross section of chip cut by one abrasive par
in cutting, k - coefficient depending on the chip position
frontal angle). After modifying the equation to include th
abrasive particles, a set of lengthy equations is derived t
calculate the cutting force as a function of tool, work, an

L 45600-66   EWT(d)/EWP(1)/EWP(e)/EWT(m)/EWP(v)/EWP(k)/EWP(h)/EWP(1)   JD/WH

ACC NR: AT6014332   SOURCE CODE: UR/2529/62/000/070/0144/0158

AUTHOR: Yunusov, F. S.; Troyanskiy, N. S.   36

ORG: None   B+1

TITLE: Grinding complex surfaces on the LSh-1A grinder   14

SOURCE: Kazan. Aviatsionnyy institut. Trudy, no. 70, 1962. Aviatsionnaya tekhnologiya i organizatsiya proizvodstva (Aviation engineering and organization of production), 144-158

TOPIC TAGS: abrasive, grinding, grinding machine, shaping device

ABSTRACT: The authors discuss various problems encountered in using an abrasive band [5] for grinding three-dimensional complex shapes. The abrasive band is an elastic instrument whose work capacity depends on contact with the machined surface. Band grinding is normally accomplished by using a working contact-roller with a radial generatrix. The abrasive band passes over the working roller and conforms to its shape. However, in machining noncircular surfaces, contact between the abrasive band and the roller varies. As a result of this, the cutting angle, chip cross section and stresses vary. These changes in the abrasive band produce uneven elongation and destruction of the binding and abrasive. To avoid this a rotatable grinding head has been introduced. Rotatable heads ensure a right angle between the axis of rotation of the working roller

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L 45600-66

ACC NR: AT6014332

and the normal to the machined surface. The kinematic diagram of special machine tools equipped with rotatable grinding heads does not differ from that for the LSh-1A special duplicating-grinder equipped with a swinging head. The authors consider the kinematic diagram of the grinding head assembly for this machine. The kinematic and hydraulic diagrams for this unit are given. The grinding head for this unit swings about the axis of the working roller. Particular attention is paid to the working contact-roller which is the basis of productivity and maximum efficiency of the abrasive band. Abrasive band photographs are given for bands used with and without grinding heads. An analysis of all of these factors may be used to determine the optimum dimensions for the eccentric and the shape of the machined part. The dimensions of the grinding head assembly are also determined. The optimum generatrix of the working roller is deter-mined and the shape of the machined product is taken into account along with the roller width, depth of grinding and the swing angle of the grinding head. All of these fac-tors contribute to maximum utilization of the abrasive band and the machine tool. The results of this analysis also show that an additional gear should be added in the kine-matic chain for machining both convex and concave shapes. Orig. art. has: 7 figures, 23 formulas.

SUB CODE: 13/ SUBM DATE: 15Mar61/ ORIG REF: 002/

Card 2/2

GABRIYEL'YANTS, G.A., glav. red.; AZIZKHANOV, D.A., red.; VENGERSKIY,
V.M., red.; YEREMENKO, V.Ye., red.; YERSHOVA, Ye.M., red.;
ZININ, T.G., red.; KOVYNEV, N.P., red.; RAKHMANKULOV, M.M.,
red.; SLIVKIN, LZ., red.; TIKHOMIROV, A.I., red.; YUNUSOV, F.Iu.,
Geroy Sotsialisticheskogo Truda, red.; AKBAROV, A., red.;
BAKHTIYAROV, A., tekhn. red.

[Materials of the Conference of Agricultural Workers of Central
Asia, Azerbaijan, and Southern Areas of Kazakhstan] Materialy
Soveshchaniya rabotnikov sel'skogo khozyaystva respublik
Sredney Azii, Azerbaidzhana i iuzhnykh oblastei Kazakhstana,
Tashkent, 1961. Tashkent, Gos. izd-vo Uzbekskoi SSR, 1962.
358 p.(Za rabotu, tovarishchi khlopkoroby!)   (MIRA 15:3)

1. Soveshchaniye rabotnikov sel'skogo khozyaystva respublik
Sredney Azii, Azerbaydzhana i yuzhnykh oblastey Kazakhstana,
Tashkent, 1961. 2. Predsedatel' kolkhoza imeni Karla Marksa
Oshskogo rayona Kirgizskoy SSR (for Yunusov).
       (Soviet Central Asia--Agricultural workers)
          (Azerbaijan--Agricultural workers)
             (Kazakhstan--Agricultural workers)

YUNUSOV, G.R.

"Hydrological regime of rivers in central, northern, and western Kazakhstan" by Z.T.Berkaliev. Reviewed by G R.IUnusov. Meteor. i gidrol. no.1:57-60 Ja '62.   (MIRA 15:1)
            (Kazakhstan--Runoff) (Berkaliev, Z.T.)

YUNUSOV, G.R., doktor geograf. nauk, prof.

Streamflow and water balance changes. Meteor. i gidrol. no.11:42-48
N '64.   (MIRA 17:12)

1. Voronezhskiy gosudarstvennyy institut.

YUNUSOV, O.R.

Methodology of calculating water balance in relation to
agricultural activity on the drainage area. Trudy GGI
no.127:101-127 '65.   (MIRA 18:9)

YUNUSOV, I. Kh.

Yunusov, I. Kh. -- "Working out a Rational Method of Cleaning Out Massive Sand Plugs and
Reaming (razburivaniye) the Cement Terminal Portions of the Boreholes with a Mine-face
Engine of Small Overall Dimensions." Acad Sci USSR, Inst of Petroleum, Moscow, 1955
(Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No. 24, Moscow, Jun 55, pp 91-104

YUNUSOV, I. Kh.; YES'MAN, B.I., red.; MIKELADZE, G., red. izd-va.; AGAYEVA, Sh., tekhn. red.

[Removing compact sand corks and drilling bootlegs by small bottom-hole drives] Chistka plotnykh peschanykh probok i razburivanie tsementnykh stakanov zaboinym dvigatelem malykh gabaritov. Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1958. 69 p.
(MIRA 11:12)

(Oil wells--Repairing)

GEORGADZE, I.M., IUNUSOV, Kh.Ya.

Discovery of a uterus in inguinal hernia in a male. Khirurgiia
no.2:68 F '55.   (MLRA 8:5)

1. Khirurgicheskaya klinika Tashkentskogo meditsinskogo instituta
imeni V.M.Molotova i Institut perelivaniya krovi Uzbekskoy SSR.
        (HERNIA, INGUINAL, complications,
           hermaphroditism, uterus in hernia in male)
        (HERMAPHRODITISM, complications,
           hernia, inguinal, uterus in hernia in male)

YUNUSOV, L.

"Structural-Mechanical and Colloid-Chemical Investigations of the Takyrs (claylike substances) of Turkmen SSR." Cand Chem Sci, Inst of Chemistry, Acad Sci Uzbek SSR, 29 Dec 54. (PV, 17 Dec 54)

Survey of Scientific and technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

YURUSOV, L.Yu.; AKHMEDOV, K.S.

Absorption of water by takyrs of the Turkmen S.S.R. Dokl.
AN Uz.SSR no.8:37-39 '59.   (MIRA 12:11)

1. Sredneaziatskiy gosuniversitet im. V.I.Lenina. Predstavleno
chlenom-korrespondentom AN UzSSR Kh.U.Usmanovym.
              (Turkmen--Takyr) (Soil percolation)

STARODUBTSEV, S.V.; YUNUSOV, M.

Effect of gamma rays on ruby fluorescence yield. Izv. AN Uz.
SSR. Ser. fiz.-mat. nauk 9 no.1:111-113 '65.   (MIRA 18:6)

1. Institut yadernoy fiziki AN UzSSR.

23076

5.2200 $10^43, 1160, 1136$

S/078/61/006/006/002/013
B110/B206

AUTHORS: Glukhov, I. A., Davidyants, S. B., Yunusov, M. A.,
               Yel'manova, N. A.

TITLE: Chlorination mechanism of rhenium heptasulfide Re_2S_7

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 6, 1961, 1264-1266

TEXT: The authors wanted to determine some intermediate stages of the
rhenium heptasulfide chlorination: $ReS_2 \rightarrow \ldots \rightarrow ReSCl_2 \rightarrow ReCl_4 \rightarrow ReCl_5$.
It was obvious to suppose (Ref. 1: S. B. Davidyants et. al: Tr. Akademii
nauk Tadzh. SSR, 1958, v. 34, no. 2, p. 105) that besides these known
stages between ReS_2 and $ReSCl_2$, the intermediate product ReS_2Cl_2 was
formed. Saturated sulfides (e.g., that of rhenium) react readily with
free chlorine, while saturated oxides react only at red heat.

$$S = Me = S + Cl_2 \rightarrow S = Me - S \overset{Cl}{\underset{Cl}{|}}$$ forms probably in this connection under opening

of the first double bond, followed by the opening of the second one. Only

Card 1/4

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S/078/61/006/006/002/013

Chlorination mechanism of rhenium ...   B110/B206

substitution is possible for saturated Re_2S_7. As the valence of Re drops

from 7 (Re_2S_7) to 5 ($ReCl_5$), the reaction must take its course over a

number of intermediates. The synthetic Re_2S_7 reacts with chlorine already

at low temperatures. It should therefore be possible to observe a number

of unstable intermediates under mild reaction conditions. Re_2S_7 was

produced by precipitation of a potassium perrhenate solution with ammonium

sulfide (8% sulfide sulfur). After washing out by decanting with hot

hydrochloric acid (70-80 ml concentrated HCl to 1 l H_2O), drying took

place at $160^{\circ}C$ in a CO_2 current. In order to prevent exothermic heating,

a dry chlorine-carbon dioxide mixture ($Cl:CO_2 = 1:5$) was conveyed through

3-5 g Re_2S_7 in an electric glass furnace. The optimum temperature was

established to be around $120^{\circ}C$ during experiments at temperatures between

25 and $180^{\circ}C$. At lower temperatures, chlorination did not proceed

quantitatively, and at higher ones, the intermediates were chlorinated

further. In the CO_2 current, the water was first totally removed, then

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S/078/61/006/006/002/013
Chlorination mechanism of rhenium ...   B110/B206

the $Cl-CO_2$ mixture was introduced at a rate of 0.2 1/hr for 1-1.5 hr at
$100^{\circ}C$, and for 2-3 hr at $120^{\circ}C$ under development of sulfur chlorides. The
intermediate obtained was well soluble in water and alcohol in contrast
to the final product, thus making it possible to control the completeness
of chlorination. The elementary analysis produced as the average of three
investigations: Re = 61.12; S = 15.29; Cl = 22.37%, which agreed with the
calculated values for $Re_2S_3Cl_4$. The rhenium thiochloride formed probably

according to $Re_2S_7 + 4Cl_2 = Re_2S_3Cl_4 + 2 S_2Cl_2$, is an amorphous (established

roentgenographically), dark-brown powder, well soluble in water and ethyl
alcohol, insoluble in gasoline, chloroform and ether. When its aqueous
solution is acidified, alkalized and boiled, hydrolysis takes place under
formation of a flaky, dark-brown precipitate and formation of hydrochloric
acid. It is oxidized in alkaline solution by bromine, chlorine and
perhydrol to alkali perrhenate. In order to investigate its further
reactions, dry chlorine gas was introduced at $400-450^{\circ}C$. $ReCl_5$ and sulfur

chloride were formed thereby. Toward the end of reaction, the furnace was
kept for one hr at $400^{\circ}C$. A light-brown powdery residue was then formed.

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S/078/61/006/006/002/013
B110/B206

Chlorination mechanism of rhenium ...

Its analysis produced the thiochloride of tetravalent rhenium $ReSCl_2$, the analysis results of which in %: Re = 63.91; S = 10.56; Cl = 23.71 agree well with the calculated values. Thus, the same intermediate thiochloride product forms during the chlorination of $Re_2S_3Cl_4$ between 400 and $500^{\circ}C$ an during the chlorination of ReS_2: $2ReS_2 + 3 Cl_2 = 2 ReSCl_2 + S_2Cl_2$ and $2 Re_2S_3Cl_4 + Cl_2 = 4 ReSCl_2 + S_2Cl_2$. Further chlorination of $ReSCl_2$ at $450-500^{\circ}C$ leads to the formation of volatile $ReCl_5$, which concludes the chlorination process: $2 ReSCl_2 + 4 Cl_2 = 2 ReCl_5 + S_2Cl_2$. The entire chlorination process of Re_2S_7 proceeds in the following way: $Re_2S_7 \longrightarrow$ ... $\longrightarrow Re_2S_3Cl_4 \longrightarrow$ ... $\longrightarrow ReSCl_2 \longrightarrow ReCl_4 \longrightarrow ReCl_5$. The separated thiochlorides will be studied in more detail at a later date. There are 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: May 18, 1960

Card 4/4

S/078/63/008/001/010/026
B101/B186

AUTHORS: Glukhov, I. A., Davidyants, S. B., Yel'manova, N. A.,
Yunusov, M. A.

TITLE: Synthesis of rhenium sulfides and oxysulfides from rhenium
thiochlorides

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 94-95

TEXT: The synthesis of the hitherto unknown compounds ReS, Re_2S_3, ReOS
and $Re_2S_3O_2$ is described. ReS was obtained by heating $ReSCl_2$ in a current
of hydrogen. The liberation of HCl begins at 350°C. After 1.5 to 2 hr the
substance is heated at 500°C until no HCl can be traced in the H_2. In the
same way, Re_2S_3 is obtained from $Re_2S_3Cl_4$. Both substances are steel gray
powders which do not change in air and are more stable towards perhydrol
and bromine water than Re_2S_7 and ReS_2. From the blurred Debye patterns it
is concluded that the synthetized sulfides are cryptocrystalline. ReOS and
$Re_2S_3O_2$ were obtained from $ReSCl_2$ and $Re_2S_3Cl_4$, respectively, by heating at
Card 1/2

Synthesis of rhenium sulfides...   S/078/63/008/001/010/026
                                                B101/B186

350 to 500°C in water-vapor-containing CO_2. The reaction is terminated in
2 hr. The oxysulfides are black, amorphous powders.

ASSOCIATION: Institut khimii Akademii nauk Tadzhikskoy SSR (Institute of
             Chemistry of the Academy of Sciences Tadzhikskaya SSR)

SUBMITTED: April 5, 1962

Card 2/2

GLUKHOV, I.A.; DAVIDYANTS, S.B.; YEL'MANOVA, N.A.; YUNUSOV, M.A.

Preparation of sulfides and oxysulfides from rhenium
sulfochlorides. Zhur.neorg.khim. 8 no.1:94-95 Ja '63.

(MIRA 16:5)

1. Institut khimii AN Tadzhikskoy SSR.
(Rhenium sulfides)

YUNUSOV, M. R., CAND BIO SCI, "STUDY OF THE SUCCESSION OF CERTAIN TRAITS AND CHARACTERISTICS IN CROSSING THE properties GYMNOSPERMOUS AND ANGIOSPERMOUS FORMS OF THE COTTON PLANT." TASHKENT, 1961. (ACAD SCI TASSR, DEPT OF AGR AND BIO SCI). (KL, 3-61, 212).

159

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.; YUNUSOV, M.S.

Furan series. Part 28: Synthesis of 2,5-bis(β-dialkylaminoethyl)
furans. Zhur.ob.khim. 33 no.7:2164-2167 Jl '63.   (MIRA 16:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
                              (Furan)

SHARONOV, L.V.; YUNUSOV, M.A.

New data on the geological structure and oil occurrences of
reef massifs in the zone of Kama-Kinel' troughs (Perm Province
and the Bashkir A.S.S.R.). Neftegaz. geol. i geofiz. no. 10:
8-11 '65.   (MIRA 18:12)

1. Kamskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
geologorazvedochnogo neftyanogo instituta, Moskva, i Ufimskiy
neftyanoy nauchno-issledovatel'skiy institut.

AZIMOV, S.A.; MASAGUTOV, V.S.; YUNUSOV, M.

Generating V^0 particles in complex nuclei. Izv. AN Uz. SSR. Ser.
fiz.-mat.nauk no.4:13-22 '58.   (MIRA 11:11)

1. Fiziko-tekhnicheskiy instityt AN Uz. SSR.
                    (Nuclear physics)

ACCESSION NR: AP4025901   S/0166/64/000/001/0092/0094

AUTHOR: Starodubtsev, S. V.; Yunusov, M. S.

TITLE: The effect of γ-irradiation on some optical properties of
synthetic ruby

SOURCE: AN UzSSR. Izv. Seriya fiziko-matematicheskikh nauk, no. 1,
1964, 92-94

TOPIC TAGS: laser, ruby laser, ruby crystal, gamma irradiation, gamma
ray, ruby color center, ruby crystal defect, irradiated ruby

ABSTRACT: In connection with the laser applications of ruby crystals,
pink ruby crystals containing 0.2% Cr_2O_3 were studied to determine the
formation and stability of color centers as a function of γ-irradiation.
The dose rate from a Co^{60} source at 34C was 350 r/sec. The ruby ab-
sorption spectrum changes markedly in the visible and ultraviolet re-
gions of the spectrum, beginning with irradiation doses of about 10^3 r.
In the red region, this dose causes an increase in density which re-
mains constant regardless of any further rise in irradiation dosage.
Marked color saturation was observed at 10^6 r. The thermoluminescence-
temperature curve, plotted from room temperature to 500C, has a wide

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ACCESSION NR: AP4025901

maximum at 300C whose intensity is proportional to the irradiation
dose. Annealing at 500C removes radiation-induced color. When ex-
posed to ultraviolet light, the γ-irradiated specimen gave off more
intense luminescence than a control specimen. It is concluded that
the color changes of γ-irradiated specimens may be due to Cr-inclusion
defects or valence changes of chromium in ruby. Orig. art. has:
2 figures.

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Institute of Nuclear
Physics, AN UzSSR)

SUBMITTED: 10Dec63   DATE ACQ: 17Apr64   ENCL: 00

SUB CODE: PH   NO REF SOV: 000   OTHER: 003

Card 2/2

L 17686-65   EWT(1)/EWP(e)/EWT(m)/EPP(c)/EPP(r -)
AS(mp)-2/AFWL/SSD/AFMDC/AFETR/RAEM(s)/RAEM(c)/
ACCESSION NR: AP4049480

AUTHOR: Vereshchagin, L. F. (Corresponding mem
Starodubtsev, S. V. (Academician AN UzSSR);

TITLE: Coloring and luminescence of γ-ray-irra

SOURCE: AN SSSR. Doklady, v. 159, no. 2, 19

TOPIC TAGS: synthetic ruby crystal, ruby, gamma
spectrum, gamma ray irradiation, pleochroism,
thermoluminescence, paramagnetic resonance, absor

ABSTRACT: Crystals of light-rose synthetic ruby
0.2— 0.4% Cr_2O_3 were irradiated with γ-rays at a
350 r/sec and a source temperature of 34°. The
of ordinary and extraordinary rays was measured by

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L 17686-65
ACCESSION NR: AP4049490

region, which remains virtually unchanged at higher doses.
chroism appears in the 420—530-mu region and increases
increase in dose. At doses on the order of 10⁶ r, there
noticeable color saturation. With irradiation, the spec
toward the shortwave region. Investigations of ther
due to irradiation of specimens annealed at a temperatur
that within the temperature range of

Card 2/3

L 17686-65

ACCESSION NR: AP4049480

sition 1/2 ↔ - 1/2 is more sensitive to irradiation
due to transitions - 1/2 ↔ 1/2. Orig. art. has

ASSOCIATIONS: Institut fiziki vysokikh davlenii
(Institute of Physics of High Pressures, Academy of
Institut yadernoy fiziki Akademii nauk UzSSR (Institute
of the Academy of Sciences UzSSR)

NO REF SOV: 002   OTHER: 005   ATE P:

Cord 3/3

L 11022-65   EWT(m)/EWP(e)/EWP(b)/EWP(t)   Pq-4   LJP(c)/SSD/AFWL
AFWDC/ESD(c)/ESD(t)   JD/WH/MLK

ACCESSION NR: AT4046906   S/0000/64/000/001

AUTHOR: Yunusov, M.

TITLE: Effect of electrical treatment on excited luminescence in crystals

SOURCE: AN UzSSR. Institut yadernoy fiziki. Radiatsionny*ye effekty* v kondens
vanny*kh sredakh (Radiation effects in condensed media). Tashkent, Izd-vo Nauk
UzSSR, 1964, 12-16

TOPIC TAGS: quartz crystal, electrical treatment, proton bombardment, thermolum
escence, luminescence curve, quartz structure

ABSTRACT: The author studied the effect of electrical treatment on the
thermoluminescence in a near-anode and near-cathode layer of smoked quartz
proton beam with an energy of about 100kev, thus permitting the investigat
effects in a very thin layer. The experimental set-up is illustrated and
Samples in the form of flat chips 1.6 x 1 x 0.15-0.2 cm were polished

L 11022-65
ACCESSION NR: AT4046906

structure by proton bombardment. It is therefore insensitive to
which also destroys the crystal lattice. Also, protons can play the
pensating for defect charges. Maxima II and III are transformed
process, causing a rearrangement of the oxide lattice and transf
direction of the electrodes. The behavior of the cathode layers
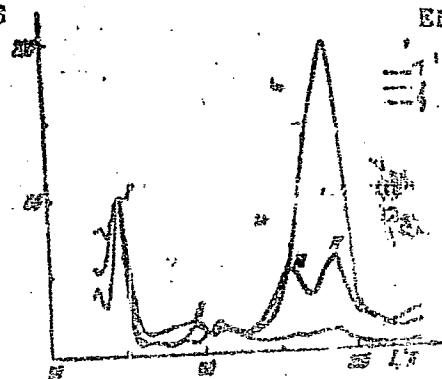(possibly of type E) which are responsible for maxima III and IV

ENCLOSURE:

Fig. 1. Luminescence curves of quartz irradiated by protons: 1 - before treatment; 2, 3 - after electrical treatment of the near-anode and near respectively. Oridinate = photon flux in relative units.

Card 3/3

L 42036-65   EWP(e)/EWT(m)/EPF(c)/EWP(1)/EPF(n)-2   Pr-4/Po...
ACCESSION NR: AP5009153   5/0166/...

AUTHOR: Starodubtsev, S. V.; Yunusov, M.

AUTHOR: Starodubtsev, S. V.; Xummov, M.

TITLE: Effect of Gamma irradiation on the fluorescence yield of r...

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh ...,
111-112

TOPIC TAGS: ruby, Gamma irradiation, fluorescence yield, radiat...
luminescence quenching

ABSTRACT: This is a continuation of an earlier study (Izv. A... r...
mat. nauk, 1964, no. 1, 1962), in which an approximate visual...
the fluorescence of irradiated ruby. The present article report...
electronically measured relative change in the fluorescence of ...
pink ruby containing ~0.09% chromium. The test set-up is shown...
Enclosure. The measurements consisted in comparing the lumines...
before irradiation and after irradiation at a fixed dose. The...
the intensity of luminescence of ruby decreases after irrad...

Card 1/3

L 42136-65
ACCESSION NR: AP5009153

several thousand Roentgen results in an appreciable reduction of
shape of the intensity vs. wavelength curve remains practically
doses. It is therefore concluded that the color centers produced
irradiation of the ruby do not contribute to its luminescence.

SUBMITTED: 10Nov64   ENCL: 01

NR REF COY: 002   OTHER: 001

Card 2/3

YUNUSOV, M.S.; AKRAMOV, S.T.; YUNUSOV, S.Yu.

Alkaloids of Corydalis gortschakivi and Corydalis pseudoadunga.
Dokl. AN SSSR 162 no.3:607-609 My '65.   (MIRA 18:5)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. Chlen-
korrespondent AN SSSR (for S.Yu.Yunusov).

L 29102-66   EWT(1) RO
ACC NR: AP6019415   SOURCE CODE:

AUTHOR: Yunusov, M. S.;

ORG: Institute of the Chemistry of Plant Substances
rastitel'nykh veshchestv AN UzSSR

TITLE: Investigation of the alkaloid of ... of the
pseudoadunca

SOURCE: AN SSSR. Doklady, v. 161,

TOPIC TAGS: alkaloid, plant chemistry

ABSTRACT: The underground part of ...
topin, isocorydine, and ...
stituting groups in position ...

The underground parts of ...
the bases A, B, and ...
the dextro rotatory form ...
base C is di-... An ...
ester of which ... the ...
coramine is suggested for ...

SUB CODE: 07,

Card 1/1   LC

YUNUSOV, N., inzh.

Efficient size of dispatcher sections on heavy traffic lines.
Zhel.dor.transp. 42 no.3:48-51 Mr '60.   (MIRA 13:6)
              (Railroads--Train dispatching)

YUNUSOV, N., inzh.

Lengthening of haul distances and organization of the work of train
dispatchers. Zhel. dor. transp. 43 no. 7:26-28 Jl '61.
(MIRA 14:7)
(Railroads--Train dispatching)

YUNUS ov, N.K.

YUNUSOV, N.K.

Considering upper strata errors in reflected-wave hodographs
related to data on the eastern borderlands of the Russian Platform.
Prikl.geofiz. no.17:115-129 '57.   (MIRA 11:2)
                    (Russian Platform--Seismometry)

YUNUSOV, R.A.

Treatment of anacid and hypoacid gastritis with decoctions
from dried fruits. Izv.AN Uz.SSR.Ser.med. no.4:41-45 '58.
(MIRA 12:5)

1. Institut krayevoy meditsiny AN UzSSR.
(STOMACH--DISEASES) (FRUIT, DRIED--THERAPEUTIC ASPECTS)

YUNUSOV, R.A.

Effectiveness of treating rheumocarditis with corticosteroid
hormones. Kaz.med.zhur. no.5:3-8 S-O '60.   (MIRA 13:11)

1. Iz 3-y kafedry terapii (zav. - chlen-korrespondent AMN SSSR,
prof. I.A.Kassirskiy) TSentral'nogo instituta usovershenstvovaniya
vrachey.
        (RHEUMATIC HEART DISEASE)
        (STEROIDS)

KASSIRSKIY, G.I.; YUNUSOV, R.A. (Moskva)

Observations on the dynamics of the phonocardiogram in patients with
rheumocarditis. Vrach.delo no.11:40-43 N '60.   (MIRA 13:11.

1. Tret'ya kafedra terapii (zav. - chlen-korrespondent AMN SSSR,
prof. I.A.Kassirskiy) TSentral'nogo instituta usovershenstvovaniya
vrachey.
        (HEART--SOUNDS)
        (RHEUMATIC HEART DISEASE)

YUNUSOV, R.A.

Combined treatment of protracted septic endocarditis. Vop.revm.
1 no.4:52-57 O-D '61.   (MIRA 16:3)

1. Iz 3-y kafedry terapii (zav. - chlen-korrespondent AMN SSSR
prof. I.A. Kassirskiy) Tsentral'nogo instituta usovershenstvo-
vaniya vrachey, Moskva.
        (ENDOCARDITIS)   (ADRENOCORTICAL HORMONES)

'UNTSOV, S.

Dissertation defended at the Institute of Physiology imeni I. P. Pavlov
for the academic degree of Candidate of Biological Sciences:

"Effect of High Temperature, Environment, and Muscular Action on Gas
Exchange and Cardiac Output in Domestic and Wild Ungulates."

Vestnik Akad Nauk, No. 4, 1963, pp. 119-145

YUNUSOV, S.

Physiological changes during muscular activity and fatigue
in lambs during their first month of life. Opyt. izuch. reg.
fiziol. funk. 6:5-8'63   (MIRA 17:3)

1. Laboratoriya ekologicheskoy fiziologii (zav. - prof. A.D.
Slonim) Instituta fiziologii imeni I.P.Pavlova AN SSSR.

RASHEVSKAYA, D.A.; YUNUSOV, S.

Changes in the blood sugar content of lambs during muscular
activity and fatigue. Opyt isuch. reg. fiziol. funk. 6:
9-11 '63   (MIRA 17:3)

1. Laboratoriya ekologicheskoy fiziologii (zav. - prof. A.D.
Slonim) Instituta fiziologii imeni I.P.Pavlova AN SSSR.

PANOV, G.Ye., gornyy inzh.; YUNUSOV, S.A., gornyy inzh.

Effect of preliminary wetting of the K_{12} Verkhnyaya Marianna seam
on the quality of mined coal. Ugol' 37 no.3:47-48 Mr '62.
(MIRA 15:2)

1. Moskovskiy gornyy institut i Shakhta No.120 Karagandinskogo
basseyna.
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"The Alkaloids of Roemeria Refracta D. C.", III "The Alkaloids of a Plant of the Family Papaveraceae", Zhur. Obshch. Khim., 9, No. 15, 1939. Alkaloid Department, Scientific-Research Chemico Pharmaceutical Institute imeni S. Ordzhonikidze. Received 15 Jan 1939.

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Alkaloids of papaveraceous plants IV. Alkaloids of Roemeria refracta D C Constitution of remerine and synthesis of 2,3-methylenedioxyphenanthrene. R. A. Konovalova, S. Yunusov and A. P. Orekhov. Bull. soc. chim 6, 1479-83, J Gen Chem (U. S. S. R.) 9, 1517 (1939). cf C A. 33, 6325 -Hofmann degradation of remerine (I) led to the formation of a methylenedioxyphenanthrene (II) of unknown constitution The synthesis of 2,3-methylenedioxyphenanthrene III was undertaken from 6-nitroperonal IV. A mixt. of 20 g. IV (dried at 65-70° and 12 mm.), 16.5 g. of dry PhCH₂-CO₂Na, and 100 cc. of Ac₂O was heated at 100° for 24 hrs., distd in vacuo, dild. with 200 cc. H₂O and extd with 700 cc. ether The ext. was shaken out with 400 cc. of 10% NH₄OH, acidulated with 30% HCl and extd with ether, yielding 73% (26 g.) of α-phenyl-β-nitro-3,4-methylenedioxycinnamic acid, C₁₆H₁₁NO₆, m. 199-200°, reduced by NH₃-FeSO₄ to the corresponding 6-amino deriv. V, m. 207 8°. V (17.4 g.) in 1 L. of 70% alc. was diazotized at 0° by addn of 200 cc. of 10% H₂SO₄ and 6 g. NaNO₂ in 25 cc. H₂O After stirring for 30 min. at room temp., 3.5 g. of Cu powder was added. The mixt. was stirred for 2 hrs., filtered the next day, concd in vacuo, crystd out and extd with AcOEt, producing 13.4 g. of long fine needles of 2,3-methylenedioxyphenanthrene-9-carboxylic acid (VI), C₁₆H₁₀O₄, m. 255-6°. A mixt. of 1 g. VI and 3 g. of Cu chromite catalyst in 10 cc. quinoline was boiled for 1 hr. until the evolution of CO₂ ceased completely. The cooled mixt. was dild. with 150 cc. ether and filtered. The filtrate and washings were washed with 10% HCl, 5% NaOH and H₂O. Concn. and recrystn. from alc. gave 0.7 g. of colorless tablets of III, C₁₅H₁₀O₂,

m 99-100° (mixed m. p. with II 97° ...). di-Br deriv., m ... hydrolyzed by heating 4 g. III ... and 40 cc. HCl d 1 18 in sealed ... 50°. The product was dild. with ... alkalized with 25% NH₄OH and extd with ether. The ... product was methylated by CH₂N₂ in ether ... MeN(NO)CO₂Et) and crystd. from alc ... dimethoxyphenanthrene, m. 140 ... 130 ... , and establishing the structure of III ... identity of II and III excludes the position ... for the CH₂ group in the mol. of I and ... choice between the positions 1,2, 3,4 and ... mother liquors from the sepn. of the HCl salt ... 70 kg. of R refracta, were alkalinized ... and thoroughly extd with petr. ether, yielding ... of d-pseudoephedrine (VII), m. 118 19 ... (HCl salt, m 182 3°, and 30.5 g of an oil which ... treatment with alc (CO₂H)₂ gave 12.4 g. of ephedrine oxalate, m 286-40° yielding ephedrine VIII ... HCl salt, m 216 17 ...

up of the mother liquors gave final total yields of 16.5 g VII and 11.2 g VIII 0.024 and 0.016% of plant wt. VIII is widely distributed and has previously been reported from Ephedra, Tuxus baccata, Sida cordifolia, Catha edulis and Aconitum napellus, of the Gentaceae, Taxaceae, Malvaceae, Celastraceae and Ranunculaceae, resp. This is the 1st report of the occurrence of VIII in the Papaveraceae.   C R. Addinall

Alkaloids of the family Papaveraceas. V. Alkaloids of Roemeria refracta. D. C. T.—structure of remerine. S. Yunusov. R. A. Konovalova and A. P. Orekhov. J. Gen. Chem. (U. S. S. R.) 9, 1868 70(1939); cf. Konovalova, et al., C. A. 34, 2852¹.—Previously it was shown that remerine (I) is a methylenedioxyporphine with the formula C₁₈H₁₇(NMe)- O₂CH₂ (C. A. 33, 6325⁴). Of the 5 theoretically possible arrangements of the CH₂O₂ group in I the 2,3- and 6,7- positions were excluded, because the product of the Hof mann degradation of I proved to be different from the synthetic 3,4-methylenedihydroxyphenanthrene. cf. In continuing the study of the I structure, it was demethylated with phloroglucinol in concd. HCl at 180-90 to form a dihydroxyporphine (II), m. 162. II. named here noremerine III, is different from apomorphine 3,4-II, and therefore the CH₂O₂ arrangement of the CH₂O₂ in position. Thus the possible arrangement III with CH₂N was reduced to the 1,2- or 5,6-position (IV), m. in MeOH + Et₂O gave cryst. dimethylnorremerine (IV), m. 105-6°, [α]D − 145.2°. It differs from the amorphous dimethylapomorphine (cf. Knorr and Raabe, C. A. 2, 3115). Hofmann degradation of IV yielded dimethoxy-5-

... remsiphenanthrene (VI, m. 54) 7°. Oxidation of V or VI with KMnO₄, gave dimethoxyphenanthrene ... o.d., m. 213 13°, converted by heating with Cu bromate catalyst in quinoline to 3,4-dimethoxyphenan... methylmorphole) (VI), m. 43 4°, its Hr deri... picrate, m. 105-6°. It is identical with VI obtained syn thetically by Pschorr (Ber. 33, 1810) ... methylation of morphole (cf. Barger, C. A. 12, 1458 ... decompn. product of morphine. VI could be derived from 3,4- or 5,6-II. Since III is not identical with apo morphine, it follows that the H₂O groups in III are in the 5,6-position and therefore I is ... m ... phine. The Hofmann dehydration of IV ... deriv with KOH in MeOH proceeds almost ... liberation of some NMe₃ and formation of V and ... der-N-methylnorremerine, a unstable mass, ... MeI deriv., m. 278°, refluxed with KOH in MeOH yield V VI. Alkaloids of Glaucium ömbrilligerum. Konovalova, S. Yunusov and A. P. Orekhov ... 46 Extn of 6 kg of dry, powd ... erd in summer in Tashkent with CHCl₃ ... NH₄OH gave 47 g of mixed alkaloids ... protopine, corydine, allocryptopine, ... sanguinarine. The 1st 3 alkaloids are present in the parts of the plant and the remaining 2 alkaloids in the roots. The usual methods of isolation and identification of the alkaloids are described in detail. 2) references

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